

# MODS Mechanical Status II

Mark Derwent

*The Ohio State University*

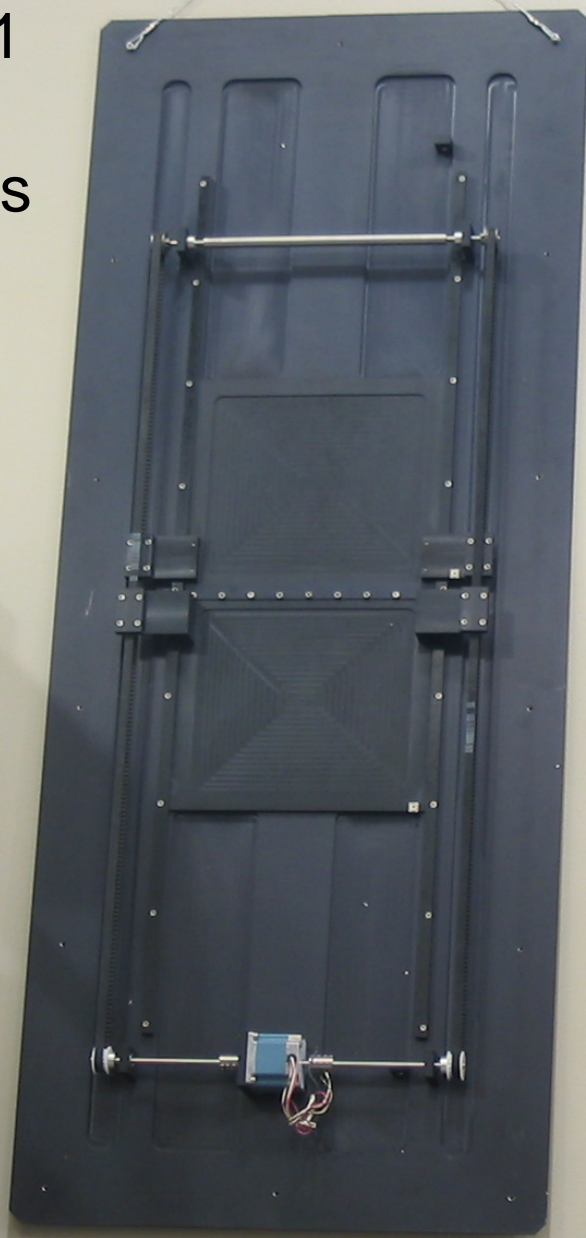
*Department of Astronomy*

# MODS Mechanical Progress

## Topics to Discuss:

- Darkslide
- Dichroic Select
- Calibration System
- Grating Select With Grating & Imaging Tilts
- MODS Structure
- MODS Handling Cart

MODS #1  
and #2  
Darkslides



# MODS Darkslide

## Darkslide Work Completed

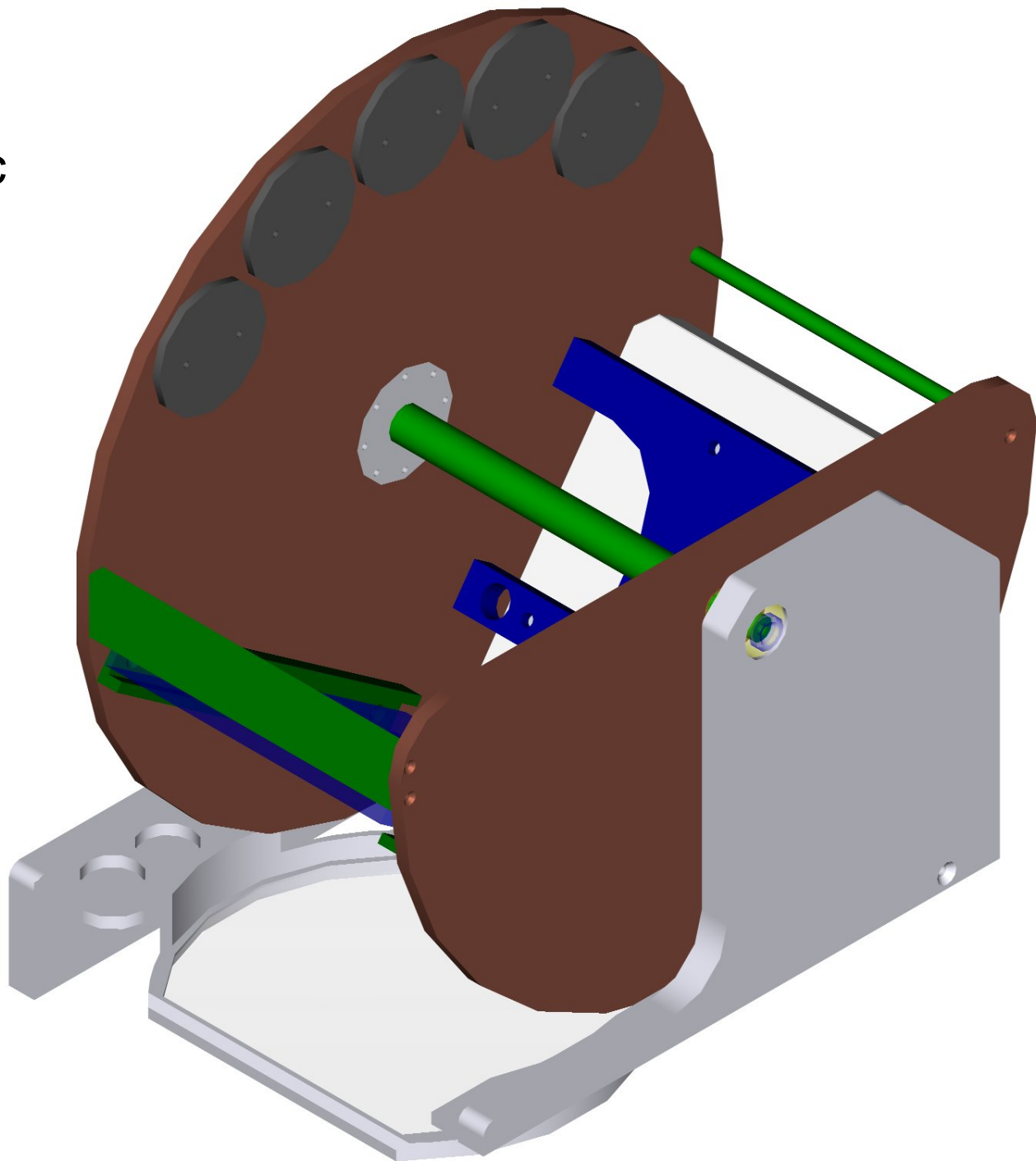
- Both MODS #1 & MODS #2 Darkslides have been fully assembled & tested
- Assembly Documentation about 80% complete

# MODS Darkslide

## Darkslide Work Remaining

- Mechanism wiring
- Mount on the MODS Structure
- Fabricate a Baffle Mask for each Darkslide
- Finish documentation

MODS  
Dichroic  
Select



# MODS Dichroic Select

## Dichroic Select Work Completed

- Detail design is about 70% complete
- Interfaces to field lens, multi-slit, optics beams, etc. are checked and complete
- Design is based on MODS Filter Wheel

# MODS Dichroic Select

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## Dichroic Select Work Remaining

- Finalize mounting rail design
- Add light-weighting features?
- Finalize counter-weighting
- Fabricate parts
- Assemble & Test
- Mechanism wiring
- Mount on MODS Structure



# MODS #1 and #2 Calibration Systems



# MODS Calibration System

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## Calibration System Work Completed

- Both MODS #1 & MODS #2 Calibration Systems have been assembled and tested
- Assembly Documentation is about 60% complete

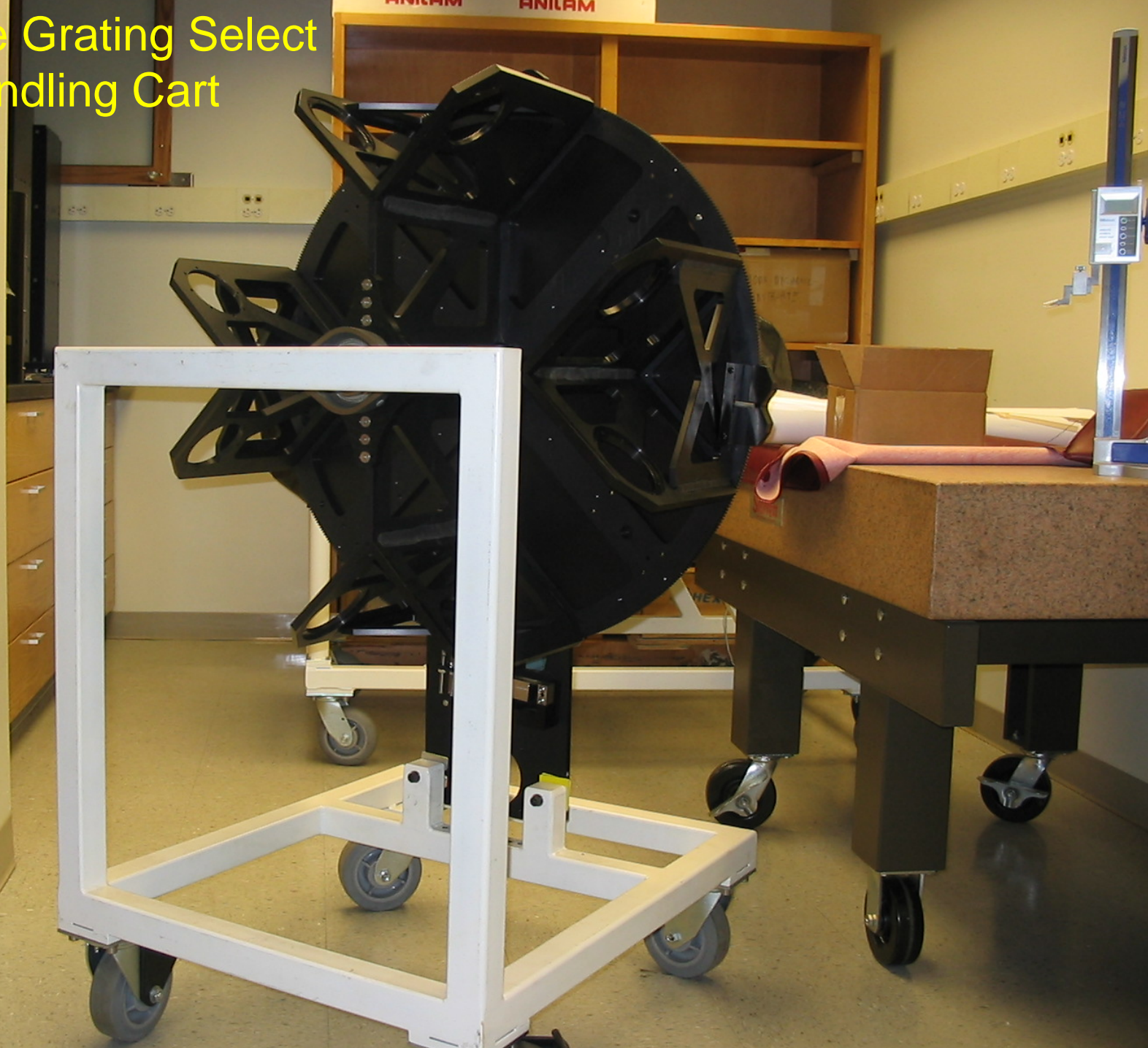
# MODS Calibration System

## Calibration System Work Remaining

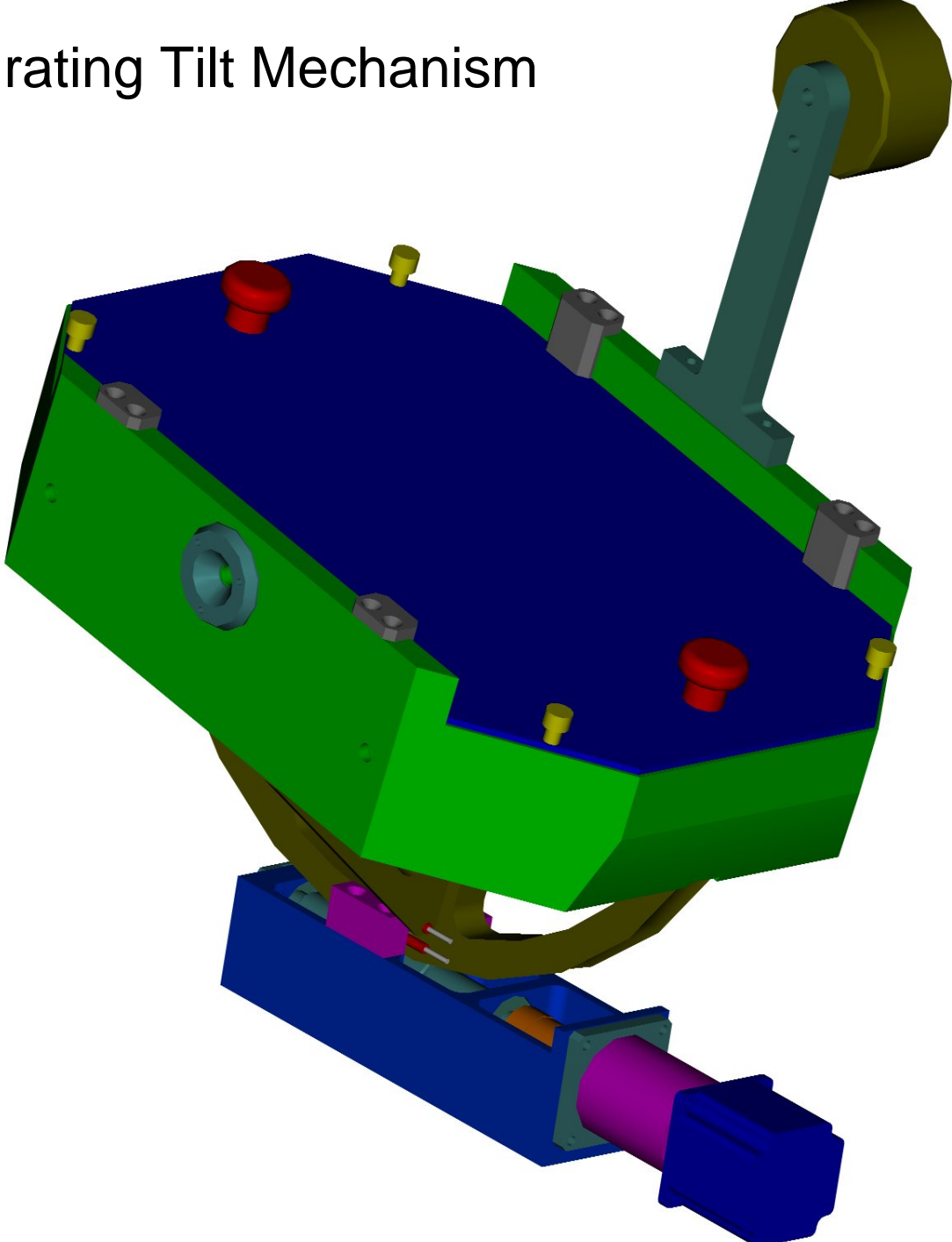
- Mount the calibration lens & calibration fold mirror
- Mechanism wiring
- Mount on the MODS Structure
- Build Integrating Sphere Mask for each
- Mechanical & optical testing on Structure
- Finish documentation



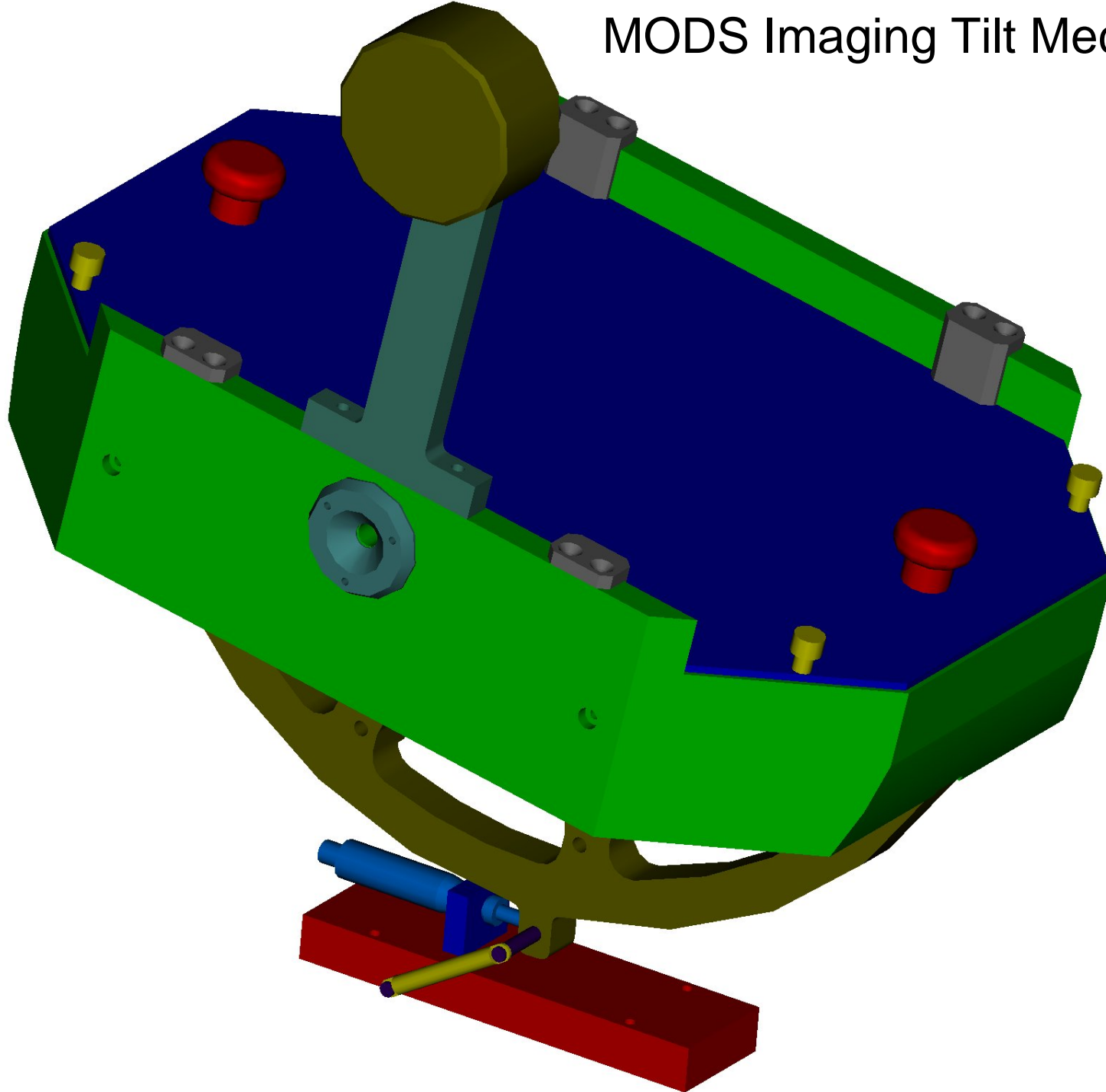
# MODS Blue Grating Select On Handling Cart



# MODS Grating Tilt Mechanism



# MODS Imaging Tilt Mechanism



# MODS Grating Select Turret

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## Grating Select Work Completed

- MODS #1 Blue Grating Select assembled
- MODS #1 Red Grating Select 95% assembled
- MODS #1 Grating Selects 80% tested
- MODS #2 Grating Select parts being ordered soon
- Assembly documentation is about 70% complete

# MODS Grating Select Turret

## Grating Tilt Mechanism Work Completed

- All parts for MODS #1 received
- MODS #1 worm drives are 90% assembled
- Worm drive prototype fully tested
- Assembly documentation is about 30% complete

## Imaging Tilt Mechanism Work Completed

- All parts for MODS #1 received
- Prototype fully tested



# MODS Grating Select Turret

## Grating Select Work Remaining

- Mount grating tilts and imaging tilts to select frame
- Test in fully integrated status on grating select cart
- Mechanism wiring
- Mount on MODS Structure (Red & Blue)
- Test on MODS Structure
- Receive parts and build MODS #2 Grating Selects
- Finish assembly documentation

# MODS Grating Select Turret

## Grating Tilt Mechanism Work Remaining

- Finish assembling MODS #1 tilts
- Mount Gratings in Tilt Cells
- Finish assembly documentation
- Order MODS #2 tilt parts, build MODS #2 tilts

## Imaging Tilt Mechanism Work Remaining

- Mount Imaging Flats in tilt cells
- Finish assembly documentation
- Order MODS #2 tilt parts, build MODS #2 tilts



MODS Structure on Handling Cart

# MODS Structure & Cart

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## MODS Structure Work Completed

- MODS #1 Structure received on 2-25-05
- MODS #2 Structure 30% complete

## MODS Handling Cart Work Completed

- MODS #1 Handling Cart received on 2-25-05
- MODS #2 Handling Cart 20% complete

# MODS Structure & Cart

## MODS Structure & Cart Work Remaining

- Test Structure with different configurations on the handling cart
- Add mounting holes to the Structure for the Darkslide, Calibration System, Multi-Slit, etc.
- Hoping to receive MODS #2 Structure & Cart by the end of Summer 2005
- Find lab space for MODS #2 Structure & Cart